

# Energized Electrical Work Permit

Number: \_\_\_\_\_

## **DIRECTIONS**

The Energized Electrical Work Permit must be prepared, completed, and posted at the work site before any energized electrical work may be conducted. The permit expires 60 days after the date of the earliest signature.

- Complete all sections and obtain all signatures.
- Use specific information on the form; avoid vague wording (e.g., “appropriate” and “proper”).
- Identify a specific task; annual or long-term, general energized electrical work permits are not permitted.

### **Signatures required:**

Before the pre-job briefing, obtain the approval signatures listed in section 7:

- \* Form preparer
- \* Work requestor
- \* Person conducting the Hazard Analysis
- \* Division Director (or designee)
- \* Division ESH/Safety Coordinator (or designee)
- \* Chief Operations Officer
- \* Laboratory Director

After the pre-job briefing is conducted and prior to beginning of work, obtain the signatures in section 9:

- \* Briefer
- \* Person(s) performing the work
- \* Safety watch

To ensure proper checks and reviews, the form preparer, briefer, and person conducting the work cannot all be the same person. One person may assume two of these roles, but not all three.

After this permit is completed, a copy must be sent to the ANL Electrical Safety Committee Chair.

A unique number must appear on this permit. Divisions may establish their own numbering system for permits.

Energized electrical work that consists only of testing and/or measurement may be conducted without a permit if a division approved safe work procedure is strictly followed. However, this form may be completed for such work in lieu of an existing procedure.

<b>1. General Information</b>	<b>Building:</b>	<b>Room or Site:</b>
<b>Division:</b>	<b>Date Prepared:</b>	<b>Prepared by:</b>

## **2. Scope and Description of Work to be Performed:**

### **3. Justification for Energized Electrical Work:** Check one or both of the only two general justifications:

\_\_\_ De-energizing introduces life-threatening or increased hazards beyond that of energized electrical work

\_\_\_ Infeasible (not just inconvenient) to de-energize due to equipment design or operational limits

**Note: If neither condition applies, energized electrical work is not permitted!**

Detailed explanation of justification for this task (required):

## **4. Hazard Analysis:**

### **Shock Hazard:**

Maximum voltage level to ground (or if ungrounded, between any two conductors): \_\_\_\_\_ V

Limited Approach Boundary distance: \_\_\_\_\_

Restricted Approach Boundary distance: \_\_\_\_\_

Prohibited Approach Boundary distance: \_\_\_\_\_

### **Arc Flash and/or Arc Blast Hazard:**

Hazard Category determined by: \_\_\_\_\_ Table 130.7(C)(9) of NFPA70E or by \_\_\_\_\_ Arc flash hazard analysis calc.

Circle the determined NFPA 70E Hazard Category:    -1    0    1    2    3    4

Available fault current: \_\_\_\_\_ amps

Arc Flash Boundary distance (if flash hazard analysis calculation was performed): \_\_\_\_\_

Detailed description of any other hazards:

Hazard Analysis Performed by (signature): \_\_\_\_\_ Date: \_\_\_\_\_

**(OVER)**

**5. Hazard Mitigations:** Check and specify all that apply.

- ☐ Electrically insulating gloves, minimum class (circle required class): 00 0 1 2 3 4
- ☐ Leather protectors over insulating gloves
- ☐ Safety glasses with side shields or safety goggles
- ☐ Insulated hard hat to ANSI Z89.1. Check: ☐ Class E required or ☐ either Class G or Class E
- ☐ All tools must be insulated meeting specification IEC900 and/or ASTM F1505
- ☐ Insulated barriers or rubber blankets
- ☐ Insulated rubber matting
- ☐ Barricades and warning signs located at least Limited Approach and Arc Flash Distances away from the hazard
- ☐ Safety watch required
- ☐ Engineering configuration review required (check that field conditions match configuration documents)
- ☐ Cotton or other non-melting clothing, specify items: \_\_\_\_\_
- ☐ Hearing protection
- ☐ Arc rated face shield, minimum arc rating: \_\_\_\_\_
- ☐ Flame resistant (FR) clothing, specify items including minimum arc rating: \_\_\_\_\_
- ☐ Flash suit rated to a minimum of \_\_\_\_\_ calories/cm<sup>2</sup>
- Other hazard mitigations, precautions, personal protective equipment (PPE), and any additional details for above:

**6. Training and other requirements:**

- ☐ Form preparer has taken ESH375 NFPA-70E training (or equivalent as approved by ESC chair)
- ☐ Briefer has taken ESH375 NFPA-70E training or equivalent
- ☐ All persons performing work have taken ESH375 NFPA-70E training or equivalent
- ☐ Safety watch has taken ESH-375 NFPA-70E training and current ESH109 or equivalent CPR training
- ☐ Briefer, persons performing work, and safety watch are competent in the construction and operation of the equipment being worked on and understand the hazards of the work to be performed

**7. Approval Signatures:****Form Preparer:**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Person requesting uninterrupted power:** Energized electrical work is required as specified in Section 3.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Division ESH/Safety Coordinator:** I have reviewed the identification and mitigation of hazards indicated on this form as well as verified that this form is the latest revision.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Division Director:** I have reviewed this form and concur that working electrically energized is necessary.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Chief Operations Officer:** I have reviewed this form and concur that working electrically energized is necessary.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Lab Director:** I have reviewed this form and concur that working electrically energized is necessary.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**8. Checklist immediately before work begins (all must be checked before work may begin):**

- ☐ All hazard mitigation specified in Section 5 of this permit is in place
- ☐ Briefer has conducted a pre-job briefing for persons performing the work and the safety watch
- ☐ All signatures appear on this permit form
- ☐ Persons conducting work remove all jewelry and any other exposed, on-person metal objects
- ☐ Safety watch has tested telephone, cell-phone or radio to use in event of an emergency
- ☐ Safety watch, worker or supervisor has contacted Argonne Fire Alarm Office (252-6131) to inform them that energized electrical work is beginning

**9. Signatures after pre-job briefing:**

**Person Performing the Work:** I understand the scope of the work, the hazards involved, the hazard mitigations specified, attended the pre-job briefing, and completed the Section 8 checklist before work begins.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Safety Watch:** I understand the scope of the work, the hazards involved, the hazard mitigations specified, the safety watch's duties, attended the pre-job briefing, and am willing to perform CPR if required.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Briefer:** I understand the scope of work, the hazards involved, the hazard mitigations specified, and have conducted a pre-job briefing to the persons performing the work and the safety watch. I have also verified that all signatures appear on this form.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_